



STANDARD STRAIGHT BAR

BAR SIZE	* LOCATION CATEGORY			3 Times Bar Diameter	6 Times Bar Diameter	c/c Spacing
	A	B	C			
#4	1'-9"	1'-6"	1'-3"	1 1/2"	3"	3 1/2"
#5	2'-2"	1'-11"	1'-6"	1 7/8"	3 3/4"	4 3/8"
#6	2'-7"	2'-3"	1'-10"	2 1/4"	4 1/2"	5 1/4"
#7	3'-6"	3'-1"	2'-6"	2 5/8"	5 1/4"	6 5/8"
#8	4'-7"	4'-1"	3'-3"	3"	6"	7"
#9	5'-9"	5'-1"	4'-1"	3 3/8"	6 3/4"	7 7/8"
#10	7'-4"	6'-6"	5'-2"	3 3/4"	7 5/8"	8 5/8"
#11	9'-0"	7'-11"	6'-4"	4 1/4"	8 1/2"	9 5/8"

* LOCATION CATEGORY:

- A- Bars in horizontal layers in top of pour with 12" or more of concrete below them such as in: footings, pier caps, etc.
 B- All bars not in Category A spaced less than 6" apart.
 C- All bars not in Category A spaced 6" or more apart.

Note:

- When development length is not specified on the Plans, the above dimensions shall be used.
- These development lengths do not apply when bar is in lightweight concrete or any other strength of concrete.
- These bar laps only apply where the General Notes indicate "Reinforcing Steel Design, $f_y = 60$ ksi."

CASE NO.1 - For bars coated with epoxy with cover less than 3 times the bar diameter or clear spacing between bars less than 6 times the bar diameter.

APPROVAL	
<i>L.S. Friedman</i> DIRECTOR	OFFICE OF STRUCTURES
DATE: 2/2/90	
REVISIONS	
SHA	FHWA
11-23-93	.
1-22-01	.
9-20-05	.
11-26-07	.

FHWA APPROVAL
DATE:

<p>STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES</p> <p>DEVELOPMENT LENGTH DIMENSIONS FOR GRADE 60 REINFORCING STEEL IN MIX NO.3 (3500 P.S.I.) CONCRETE EPOXY COATED REINFORCING CASE NO.1</p> <p>STANDARD NO. M(6.14)-90-214(L)</p>	<p>VERIFIED 11-26-2007 LRFD</p> <p>SHEET 2 OF 3</p>
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MISCELLANEOUS